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SEXUALLY TRANSMITTED DISEASES

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USAF SCHOOL OF AEROSPACE MEDICINE
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NOTICES

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The Office of Public Affairs has reviewed this report, and it is releasable to the National Technical Information Service, where it will be available to the general public, including foreign nationals.

This report has been reviewed and is approved for publication.

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This paper consists of a briefing or lecture outline on sexually transmitted diseases to be used by medical personnel as an instructional tool for a wide variety of audiences. It is intended to be used in whole or broken down to specific disease groups. It is to be accompanied by a set of 35 mm slides to be distributed separately through the Air Force Audiovisual Service (release date not established at this time). Human Immunodeficiency Virus (HIV) is not included since it is such a rapidly changing field.

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SEXUALLY TRANSMITTED DISEASES

INTRODUCTION

This Briefing package is intended for use by Flight Surgeons and other medical personnel as an instructional tool for a wide variety of audiences. It may be presented as a whole or it may be broken down to specific disease groups, or to specific diseases, or to the various diseases that may be prevalent in a given area. It is not intended to be presented by a person without medical qualifications. Medical knowledge is advancing very rapidly all the time; consequently this package must be updated with the latest information to be effective. The numbers in parentheses on the script are the slide numbers in the package.

The Human Immunodeficiency Virus (HIV), which is also a sexually transmitted disease (STD), is not covered in this briefing package because HIV is covered in its own briefing package. The information on HIV is changing so rapidly it would require frequent revision.

SEXUALLY TRANSMITTED DISEASES (1-2)

BACKGROUND

1. There are approximately 1,000,000 reported cases of *Neisserria gonorrhoeae* every year in the U.S. (3)
2. Almost 35,000 cases of syphilis are reported each year.
3. Five thousand cases of penicillin resistant gonorrhea were reported in 1985.
4. Penicillin and spectinomycin resistant gonorrhea was reported in Korea in 1982 and 1983.
5. There were over 900,000 private physician visits for genital herpes and 1,200,000 visits for genital warts in 1985. (4)
6. Sexually transmitted diseases (STDs) are still a leading cause for stillbirth and perinatal deaths.
7. There are over 20 organisms now recognized as being sexually transmitted.

BACTERIAL SEXUALLY TRANSMITTED DISEASES (5)

Gonorrhea (GC) (6)

General Information

1. also known as the "drip" or the "strain"
2. a common sexually transmitted disease--about 1 million cases reported each year
3. agent is *Neisseria gonorrhoeae*
   --gram negative, aerobic diplococcus
4. in males causes anterior urethritis
5. in females causes endocervicitis and urethritis
6. may cause pharyngitis, proctitis, conjunctivitis, vulvovaginitis
7. disseminated GC may cause skin lesions, arthritis, and tenosynovitis--endocarditis and meningitis have been reported
8. there is increased infection rates with increased numbers of sexual partners (7)
9. 60-80% of females will get cervicitis from infected males

10. only 20-30% of males will get urethritis from infected females

11. there is considerable risk of pharyngitis in oral sex with an infected partner

12. rectal GC is common in male homosexuals

13. the bacteria dies rapidly on drying

14. control is difficult due to many asymptomatic infections

15. infection can result from as little as 100-1000 colony forming units

Symptoms (8)

1) males--may be asymptomatic

a. urethritis--purulent discharge, painful urination (9)

b. pharyngitis--usually asymptomatic but can present as an exudative, painful sore throat

c. proctitis--asymptomatic to severe proctitis with tenesmus and bloody mucopurulent discharge

d. epididymitis--tender, swollen testicles

2) females

a. 50% asymptomatic or very mild symptoms

b. endocervicitis--vaginal discharge (10)

c. urethritis--painful urination

d. pelvic inflammatory disease--fever, abdominal pain, tenderness on pelvic examination

e. pharyngitis, proctitis--same as males--may lead to dissemination (11-15)

Diagnosis (16)

1. males

a. gram stain of urethral exudate 90-98% sensitivity, 95-98% specificity

b. urethral cultures--Modified Thayer Martin media (MTM)

2. females

   a. gram stain of cervix--50-60% sensitivity, 82-97% specificity

   b. culture of cervix--MTM media

3. cultures of throat, eye and rectum may be appropriate (17-18)

Treatment (19)

1. there is increasing emergence of penicillin and tetracycline resistant strains

2. the drug of choice for urethritis, rectal or pharyngeal infection

   a. ceftriaxone 125-250 mg intramuscular (IM) once

   or

   b. alternates

      (1) Amoxicillin 3 grams orally once
          probenecid 1 gram orally once

      or

      (2) Spectinomycin 2 grams IM once

      or

      (3) Penicillin G procaine 4.8 million units IM once
          probenecid 1 gram orally once

3. complications such as arthritis, meningitis, endocarditis, neonatal infection and ophthalmia should be treated with IV antibiotics--consultation with infectious disease specialists should be considered

4. follow-up Test of Cure (TOC) cultures should always be done (20)

Prevention (21)

1. condoms are very useful

2. tetracycline prophylaxis is partially protective--not reliable

3. education

Syphilis (22)

General Information (23)

1. originally called the "Great Pox"--also the French pox, the Italian pox, the Spanish pox

2. the first epidemic recorded was in 15th century Europe--originally ascribed to Christopher Columbus' returning sailors - similar diseases, however, are recorded in the Old Testament and some ancient Chinese writings

3. early treatment was with compounds of mercury--then with arsphenamine, an arsenic compound--heavy metal poisoning was common in those days

4. the agent is Treponema pallidum, a spirochete

5. there are three main stages of infection

Symptoms (24)

1. primary syphilis (25)

   a. typical lesion is a painless, clean based, indurated ulcer --the chancre (26-30)

   b. raised, firm border--feels like cartilage

   c. rectal chancres are common in male homosexuals (31-32)

   d. chancres may be seen in the pharynx, lips, tongue, nipples and fingers (33-35)

   e. chancres heal in several weeks

2. secondary syphilis (36)

   a. develops 4-6 weeks after chancre

   b. may show fever, malaise, headache, sore throat

   c. generalized lymphadenopathy, patchy hair loss

   d. rash--reddish,pink or coppery macular lesions begin on the trunk and spread outward, sparing the face

   e. rash is marked on the palms and soles

   f. highly infectious large flat topped papules (condyloma lata) may form, especially in the genital area

g. hepatitis may occur--jaundice is rare

h. symptoms may clear and then relapse

i. syphilis is the great mimic--it can look like many different diseases (37-50)

3. latent syphilis

a. the disease may go into an asymptomatic stage

b. it may remain asymptomatic for life

4. tertiary syphilis (51)

a. this is the destructive stage

b. it is slowly progressive and non-infectious

c. the patient may develop gummas--granulomas that may occur anywhere, but especially at the nose, larynx, bones and liver

d. cardiovascular involvement may lead to

(1) aortic insufficiency

(2) aortic aneurysm

(3) death from congestive heart failure or ruptured aneurysm

e. neurosyphilis--may be asymptomatic and diagnosed only by a positive VDRL or FTA-ABS on the CSF

f. may show as a subacute to acute aseptic meningitis

g. tabes dorsalis is a progressive peripheral neuropathy with loss of reflexes, vibration/position sense and progressive ataxia--tabes dorsalis may develop 20 to 30 years after infection

h. general paresis--this is a chronic meningoencephalitis with progressive loss of cortical function--may develop syphilitic psychosis

5. congenital syphilis (52)

a. the infection can cross the placenta

b. the course of the disease is similar to that in adults, but occurs at a much younger age

c. symptoms

(1) diffuse skin rash (53)

(2) mucopurulent nasal discharge--snuffles (54)

(3) Hutchinson's teeth (55)

(4) "saddle nose" (56)

(5) "saber" shins (57)

(6) neurologic symptoms

(7) nerve deafness

(8) interstitial keratitis leading to blindness

6. diagnosis (58)

a. darkfield microscopic examination of scrapings of suspected lesions (59)

b. serologic testing

1) VDRL--nonspecific--screening

2) RPR--nonspecific--screening

3) FTA-ABS--specific--confirmatory

4) cerebrospinal fluid CSF may be tested for neurosyphilis

7. treatment

a. primary, secondary, or latent (<1 yr) syphilis (60)

(1) penicillin G benzathine 2.4 million units IM once

or

(2) tetracycline 500 mg orally four times a day (QID) for fifteen days

or

(3) erythromycin 500 mg orally QID for 15 days

b. late latent syphilis (>1 yr) (61)

(1) penicillin G benzathine 2.4 million units IM weekly for 3 weeks

or

(2) tetracycline or erythromycin 500 mg orally QID for 30 days

c. neurosyphilis (62)

(1) penicillin G 2 to 4 million units IV every 4 hr for 10 days

or

(2) penicillin G benzathine 2.4 million units IM weekly for 3 weeks

or

(3) penicillin G procaine 2.4 million units IM daily plus probenecid 500 mg orally QID--both for 10 days

or

(4) tetracycline or erythromycin 500 mg orally QID for 30 days

d. congenital syphilis (63)

(1) penicillin G 250,000 units/kg IM or IV two times a day (BID) for at least 10 days

or

2) penicillin G procaine 50,000 units/kg IM daily for at least 10 days

8. prevention (64)

a. use of condoms

b. tracking and treatment of contacts to prevent spread--epidemiologic treatment of contacts prior to development of clinical disease is acceptable

c. education

Chlamydia Trachomatis (65)

General Information (66)

1. extremely common obligate intracellular pathogen

2. causes multiple diseases depending on serotype

a. lymphogranuloma venereum

b. non-gonococcal urethritis

c. trachoma, a chronic eye disease

d. neonatal inclusion conjunctivitis

e. neonatal pneumonia

3. probably the most common STD in the USA (67)

Lymphogranuloma Venereum (68)

1. agent is Chlamydia trachomatis, serotypes L1,L2,L3

2. common in tropical and subtropical areas, but occurs throughout the western world

3. true incidence is unknown

4. transmission is only by sexual contact

5. symptoms (69)

a. primary papular or eroded lesion

b. matted inguinal nodes with tenderness and erythema--classic "groove sign"

c. necrotic nodes lead to sinus tract formation

d. fever, chills, generalized rash--erythema nodosum or multiforme

e. late complications include strictures or scarring of the rectum (70-76)

6. diagnosis (77)

a. clinical suspicion

b. culture of organism--requires cell culture

c. serologic testing--complement fixation or immunofluorescence

7. treatment (78)

a. doxycycline 100 mg orally twice a day (BID) for 3 weeks

or

b. tetracycline 500 mg orally QID for 3 weeks

or

c. sulfisoxazole 500 mg orally QID for 3 weeks

d. aspiration of tense nodes to prevent sinus tract formation

e. surgery for rectal strictures

8. prevention (79)

a. use of condoms

b. education

c. no vaccine currently available

Non-Gonococcal Urethritis (80)

1. general information

a. Chlamydia trachomatis, serotypes D through K

b. causes 40% of gonococcal culture negative urethritis

c. may cause acute epididymitis

2. symptoms (81)

a. urethral exudate, usually thin and watery

b. pain or "itching" sensation on urination

c. males as well as females may be asymptomatic

3. diagnosis (82)

a. negative gram stain of exudate to check for Neisseria gonorrhoeae

b. serologic testing using monoclonal antibodies--90% sensitivity and nearly 100% specificity

4. treatment (83)

a. doxycycline 100 mg orally BID for 7 days

or

b. erythromycin 500 mg orally QID for 7 days

or

c. for epididymitis (84)

(1) ceftriaxone 250 mg IM once followed by doxycycline 100 mg orally BID for 10 days

or

(2) amoxicillin 3 grams orally once with probenecid 1 gram orally once followed by doxycycline 100 mg orally BID for 10 days

5. prevention (85)

a. use of condom

b. education

c. treat all sexual partners with the same regimen as for an acute infection to prevent reinfection or complications

Neonatal Eye Infection/ Pneumonia (86)

1) usually, infection occurs during delivery

2) erythromycin or tetracycline eye ointment is effective for the conjunctivitis

3) pneumonia is best treated with IV cephalosporin antibiotics

Chancroid (87)

General Information

1. caused by Hemophilus ducreyi (88)

2. not common in the US, but very common in the Far East

Symptoms (89)

1. soft, painful ulcer on the genitalia

2. inguinal lymphadenopathy

3. may be confused with syphilis or herpes (90-95)

Diagnosis

1. culture of the lesion; 50-60% yield

2. exclusion of other diseases

Treatment (96)

1. erythromycin 500 mg orally QID for 7 days

or

2. ceftriaxone 250 mg IM once

or

3. trimethoprim-sulfa 2 tablets orally BID for 7 days

Prevention

1. use of condoms
2. no data available on antibiotic prophylaxis
3. no vaccine available

Granuloma Inguinale (97)

General Information

1. caused by Calymmatobacterium granulomatis--gram negative bacillus
2. uncommon disease--less than 100 cases reported annually

Symptoms (98)

1. begins as painless papule, most often on the genitals, but may occur in the anal and groin area
2. over a period of months may develop into a large velvety, beefy granulomatous lesion
3. secondary bacterial infection is common
4. a keloid-like scar may form
5. pseudo-buboes may form in the inguinal area, due to granulomatous involvement
6. spread to bones or visceral organs may occur
7. secondary carcinomas MAY occur as a complication (99-102)

Diagnosis (103)

1. Wright's or Giemsa's stain of scrapings, or touch preparations of the edges of the lesion to demonstrate the classic "Donovan bodies" (104)

2. biopsy is mandatory to rule out squamous cell carcinoma which this can mimic

3. culture is not practical

4. serologic testing is not clinically available

Treatment (105)

1. tetracycline 500 mg orally QID for 3 weeks

or

2. ampicillin, chloramphenicol, gentamicin, or lincomycin may be effective

3. sexual partners should be examined and treated if required

Prevention (106)

1. use of condoms

2. education

Trichomoniasis (107)

General Information

1. caused by Trichomonas vaginalis, a single - celled protozoan

2. very common in females, but much less so in males

3. an estimated 2.5 million men and women develop the disease annually

4. may be accompanied by other STDs (108-109)

Symptoms (110)

1. may be asymptomatic in both women and men

2. may present as vaginal discharge and soreness, burning and itching (111-112)

3. the discharge is often thick and white or yellowish-white

Diagnosis (113)

1. identification is done by wet mount preparations with normal saline

Treatment (114)

1. metronidazole (Flagyl) 2 grams orally once

or

2. metronidazole 250 mg three times a day (TID) orally for 7 days

3. treatment in pregnancy is contraindicated in the first trimester and should be avoided throughout the pregnancy

4. Clotrimazole 100 mg intravaginally at bedtime for 7 days may provide symptomatic relief and some cures

5. male partners of infected women should be treated with metronidazole 2 grams orally once

Bacterial Vaginosis (nonspecific vaginitis) (115)

General Information

1. caused by Gardnerella vaginalis most commonly

2. usually in combination with other anaerobic bacteria

Symptoms

1. vaginal discharge with foul odor (116)

Diagnosis (117)

1. vaginal pH > 4.5

2. fishy odor from vaginal fluid after adding 10% potassium hydroxide

3. microscopic examination of the fluid shows epithelial cells coated with bacteria ("clue cells")

4. culture is not productive

Treatment (118)

1. metronidazole 500 mg orally BID for 7 days

or

2. amoxicillin 500 mg orally TID for 7 days--less effective but useful in pregnant women

VIRAL SEXUALLY TRANSMITTED DISEASES (119)

Herpes Simplex (120)

General Information

1. the agent is Herpes simplex
2. two types
   a. type 1 (HSV 1) usually oral
   b. type 2 (HSV 2) usually genital
3. either type may infect either region
4. generally a chronic, recurrent disease
5. recurrences are generally less severe than primary infection but not always
6. often associated with other sexually transmitted diseases
7. NO KNOWN CURE

Symptoms (121)

1. discrete, small vesicular lesions on a slightly erythematous base
2. lesions are itchy/painful
3. tender, enlarged inguinal nodes
4. fever, malaise, and anorexia may occur
5. common lesion sites (122-129)
   a. male--glans penis or penile shaft
   b. female--vulva, perineum, buttocks, cervix, vagina
   c. homosexual males may develop perianal and/or rectal lesions
6. other manifestations of HSV 2 (130-132)
   a. aseptic meningitis
   b. neonatal (perinatal) infection
   c. erythema multiforme

d. severe disseminated disease may occur in immunocompromised patients (cancer, AIDS)

Diagnosis (133)

1. Tzanck smear of the base of the lesion--for multinucleated giant cells (134)

2. Pap smear may be distinctive (135)

3. negative darkfield examination (differentiate from syphilis)

4. viral cultures are the only truly definitive test

Treatment (136)

1. primary infection

   a. acyclovir, 200 mg orally 5 times daily for 7-10 days shortens the course 3-5 days if started within 6 days of onset of lesions

2. recurrent infection

   a. acyclovir, 200 mg orally 5 times daily for 5 days, started within 2 days of onset of lesions, shortens the mean course by 1 day

3. suppressive treatment

   a. acyclovir 200 mg orally 2-5 times daily

   b. long-term effects are unknown--current experience is only 2-3 years

Prevention (137)

1. abstain from sex while lesions are present

2. asymptomatic patients probably should use a condom

3. pregnant women should inform their doctor of their history to protect the fetus--Cesarean section may be necessary

Hepatitis (138)

General Information

1. Hepatitis B can be transmitted sexually

2. the virus can be found in virtually all body fluids, including seminal fluid and vaginal fluids

3. it is most frequent, however, in male homosexuals

4. the virus may be associated with up to 80% of hepatocellular carcinomas

Symptoms (139)

1. insidious onset with anorexia, vague abdominal discomfort

2. may have nausea and vomiting

3. fever may be absent or mild

4. may have fulminating, fatal cases with acute hepatic necrosis (< 1% case fatality rate)

Diagnosis (140)

1. serologic test for hepatitis B surface antigen positive (HBsAg)

2. positive anti-hepatitis B core antibody (anti-HBc) and/or anti-hepatitis B surface antigen antibody (anti-HBs)

3. HBsAg positive and IgM anti-HBc negative usually indicates the carrier state

Treatment (141)

1. supportive treatment only

Prevention (142)

1. pre-exposure hepatitis B vaccine for high risk groups

2. intimate contacts--hepatitis B immune globulin and hepatitis B vaccine

3. post-exposure in close contacts--hepatitis B immune globulin and possibly hepatitis B vaccine

4. needle stick or mucous membrane exposure--single dose hepatitis B immune globulin

Genital and Anal Warts (143)

General Information

1. caused by human papillomavirus

2. the same virus causes common warts at other sites

3. transmitted by direct contact--usually sexual for genital warts

Symptoms (144)

1. generally asymptomatic except for physical presence
2. may cause itching
3. commonly seen on penis and scrotum in males
4. commonly on vulva, in vagina and on cervix in women
5. may be intraurethral
6. anal warts are 5-10 times more common than penile warts in homosexual males (145-148)

Diagnosis

1. classic verrucous appearance
2. biopsy and/or darkfield examination of suspicious lesions

Treatment (149)

1. cryotherapy
2. podophyllin 10% in tincture of Benzoin--leave on 1-4 hours then wash off
3. podophyllin should not be used on mucous membranes because of systemic effects--should not be used on pregnant women
4. electrosurgery
5. surgical removal

Prevention (150)

1. use of condoms
2. prompt treatment of lesions

Molluscum Contagiosum (151)

General Information

1. the causative agent is a pox virus
2. spread by direct contact, or by auto-infection

Symptoms (152)

1. flesh colored, waxy papules with a central umbilication

2. usually asymptomatic except for their presence

Diagnosis (153)

1. classic clinical appearance (154-155)

2. characteristic molluscum bodies when the lesion center is curetted and examined under the microscope (156)

Treatment (157)

1. curettage

2. cryotherapy

3. salicylic acid 5% in collodion

PARASITIC SKIN INFECTIONS (158)

Pediculosis Pubis (Crab Lice) (159)

General Information

1. the cause is Phthirus pubis, the crab louse (160)

2. most commonly transmitted by sexual contact

Symptoms (161)

1. severe itching and excoriation of the site

2. secondary bacterial infection may occur

Diagnosis (162)

1. visual identification of the adult louse

2. visual identification of nits (eggs) on the pubic hair shafts--infection may be seen on the eyebrows/eyelashes (163)

Treatment (164)

1. 1% gamma benzene hexachloride (Kwell, Lindane)

or

2. Pyrethrins with piperonyl butoxide (RID)

3. retreat in 7-10 days as required

Prevention (165)

1. avoid physical contact with infected persons and their belongings

2. adequate cleaning of clothes and bedding--requires heating to 55°C (131°F)

3. examine other members of the household or sexual contacts--treat as required

Scabies (166)

General Information

1. the agent is Sarcoptes scabiei, a mite (167)

2. the mite burrows under the skin and causes a dermatitis

3. accounts for 2-3% of all visits to the dermatologist

4. transmission by direct contact, including sexual contact

5. much more severe in immunocompromised or retarded/senile individuals (Norwegian scabies)

Symptoms (168)

1. intense itching

2. papules, vesicles or tiny linear burrows especially around the finger webs, anterior wrists/elbows, axillary folds, thighs and external genital (169-171)

3. in infants, whole body involvement is possible

4. secondary infection from scratching is common (172)

Diagnosis (173)

1. clinical picture (174-175)

2. scraping of lesion with #15 scalpel blade and a drop of mineral oil--examine under 40X magnification for mites/eggs/feces (176)

3. apply ink to the skin, then wash, it will show burrows

Treatment (177)

1. 1% gamma benzene hexachloride applied to whole body at bedtime--wash off in morning

2. 5% of cases may need retreatment in 7 days--persistent itching may be due to reaction to dead mites and not due to treatment failure

3. DO NOT OVER-TREAT--toxicity may result

MANAGEMENT OF SEXUALLY TRANSMITTED DISEASES IN THE U.S. AIR FORCE (178)

Governing Regulations and Source Documents (179)

AFR 161-7, Control of Venereal Diseases

AFP 160-5-8, Interviewer's Aid for VD Contact Investigation

AFP 161-39, Treatment and Management of Venereal Diseases

Centers for Disease Control (CDC), (MMWR) Sexually Transmitted Disease Treatment Guidelines, 1988

Responsibilities (180)

Providers

1. appropriate screening tests on patients with suspected STDs

2. refer patients to Environmental Health (EH) after diagnosis but prior to treatment--after duty hours, patients will be treated appropriately and referred to EH the next duty day

3. provide treatment in accordance with current CDC guidelines

Environmental Health (181)

1. maintain a log of all STD patients interviewed

2. interview all patients and contacts as appropriate

3. provide education to all referrals on STDs

4. monitor all follow-up testing to insure completion of therapy and cure

5. review records to insure proper documentation for case closure

6. monitor the laboratory log for positive STD results

7. notify local health department for civilian contacts

8. insure a copy of AF Form 570, Notification of Patients Medical Status, with the diagnosis blocked out, is in the patient's dental record--insure AF Form 570 is removed when the patient becomes noninfectious

Laboratory (182)

1. maintain a log of positive cultures and serologies by patient name and SSAN

2. notify patient's provider of all positive results

3. notify EH of all penicillinase-producing Neisseria gonorrhoeae cultures

It is recommended that each individual base develop a standardized protocol for all providers for the treatment of sexually transmitted diseases. This protocol will insure adequate treatment and follow-up for all STDs specific to that geographic area.

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10. Cervical gonorrhea
11. Periurethral abscess - gonorrhea
12. Hemorrhagic pustules of early gonococcal bacteremia
13. Gonococcal arthritis and tenosynovitis
14. Gonococcal arthritis with cutaneous pustules
15. Petechial lesion - gonococcal bacteremia
16. Diagnosis
17. Gonococcal pharyngitis
18. Gonococcal conjunctivitis
19. Treatment
20. Follow-up
21. Prevention
22. Syphilis - title slide
23. General information
24. Symptoms
25. Primary syphilis
26. Penile chancre - syphilis

27. Human bite - Darkfield exam positive for spirochetes and streptococci

28. Chancre - right labia - frequently missed

29. Large labial chancre

30. Chancre on the cervix - easily missed

31. Anal chancre - also several anal warts

32. Anal chancre

33. Multiple chancres - proximal shaft and on foreskin

34. Perianal chancre in an infant - possible child abuse

35. Extragenital chancre - lip

36. Secondary syphilis

37. Resolving primary chancre on finger - papular lesion of secondary syphilis on trunk

38. Papular and crusted lesions of secondary syphilis

39. Annular "nickel and dime" lesions of secondary syphilis on face

40. Secondary syphilis lesion - angle of mouth

41. Mucous patch on tongue - highly infectious

42. Erythematous macular rash of secondary syphilis

43. Later stages of the rash -- papular and crusted

44. Viral exanthem -- may be mistaken for secondary syphilis

45. Pityriasis rosea with herald patch

46. Papulo-squamous lesions on palms

47. Papulo-squamous lesions on soles of the feet

48. Condyloma lata -- easily confused with perianal warts

49. Condyloma lata on scrotum

50. Solitary, annular nodule -- late secondary syphilis

51. Tertiary syphilis

52. Congenital syphilis

53. Skin lesions of early congenital syphilis

54. Mucopurulent and hemorrhagic nasal discharge -- "snuffles"

55. Hutchinson's teeth -- late sequela of congenital syphilis

56. Destruction of the bridge of the nose by a gumma -- "saddle nose"

57. Periosteal lesions cause "saber shins"

58. Diagnosis

59. Darkfield slide of syphilis spirochete

60. Treatment

61. Late latent syphilis

62. Neurosyphilis

63. Congenital syphilis

64. Prevention

65. Chlamydia trachomatis

66. General information

67. Chlamydia inclusion conjunctivitis

68. Lymphogranuloma venereum (LGV)

69. Symptoms

70. Tender, fluctuant adenopathy

71. "Groove sign"--adenopathy above and below the inguinal ligament

72. "Groove sign" with ruptured node

73. Enlarged lymph node of LGV

74. "Esthiomene"--complication of LGV--chronic lymphedema of labia

75. Bacterial abscess--may be confused with LGV

76. Hodgkin's lymphoma--confused with LGV

77. Diagnosis

78. Treatment

79. Prevention

80. Nongonococcal urethritis

81. Symptoms

82. Diagnosis

83. Treatment

84. For Epididymitis

85. Prevention

86. Neonatal eye infection/ pneumonia

87. Chancroid

88. Classic chain arrangement of Hemophilus ducreyi

89. Symptoms

90. Small painful purulent ulcer of chancroid

91. Autoinoculation is common--"kissing ulcers"

92. Multiple secondarily infected ulcerations of chancroid

93. Phimosis secondary to chancroid

94. Chancroid with syphilitic lesion

95. Zipper cut self-treated with turpentine

96. Treatment

97. Granuloma inguinale

98. Symptoms

99. Beefy, velvety lesion characteristic of Granuloma inguinale

100. Painless lesion present for > 1 year--squamous cell carcinoma

101. Exuberant granulomatous tissue and advancing rolled border of this older lesion

102. Healing with ulceration, depressed scars and strictures

103. Diagnosis

104. Donovan bodies--"safety pin" organisms on Wright's or Giemsa stain--biopsy necessary

105. Treatment

106. Prevention

107. Trichomoniasis

108. Trichomonas vaginalis

109. Trichomonas vaginalis with typical cervix

110. Symptoms

111. Copious, frothy whitish-yellow discharge of trichomoniasis

112. White, cheesy discharge of monilia

113. Diagnosis

114. Treatment

115. Bacterial vaginosis

116. Symptoms

117. Diagnosis

118. Treatment

119. Viral sexually transmitted diseases

120. Herpes simplex

121. Symptoms

122. Early recurrent herpes

123. Secondarily infected herpes

124. Herpes may form ulcers before crusting and healing

125. Primary herpes of the vulva

126. Recurrent herpes of the vulva

127. Erosive cervicitis due to herpes

128. Erosions of primary herpes around the anus

129. Primary herpes of the penis and scrotum

130. Herpetic whitlow

131. Orofacial Herpes simplex type II

132. Herpes simplex of the eye

133. Diagnosis

134. Tzanck preparation showing multinucleated giant cells with nuclear inclusions

135. Multinucleated giant cells on a Pap smear

136. Treatment

137. Prevention

138. Hepatitis

139. Symptoms

140. Diagnosis

141. Treatment

142. Prevention

143. Genital and anal warts

144. Symptoms

145. Small wart on the coronal sulcus--other lesions are herpes

146. Classic velvety, soft verrucoid lesions of the common wart called condyloma acuminata

147. Thought to be warts, the darkfield exam was positive--syphilis

148. Adenocarcinoma of the rectum

149. Treatment

150. Prevention

151. Molluscum contagiosum

152. Symptoms

153. Diagnosis

154. Firm, waxy papule with central umbilication--classic molluscum

155. Close-up of classic lesion

156. Numerous round to oval molluscum bodies stained with methylene blue--low power photomicrograph

157. Treatment

158. Parasitic skin infections

159. Pediculosis pubis (crab lice)

160. Phthirus pubis

161. Symptoms

162. Diagnosis

163. Nit of the crab louse

164. Treatment

165. Prevention

166. Scabies

167. Sarcoptes scabiei

168. Symptoms

169. Papules on the scrotum and penis--intense itching

170. Sensitivity reaction to the mites

171. Linear burrow of the mite--classic sign

172. Secondary infection due to scratching

173. Diagnosis

174. Finger webs, a common site for scabies

175. Norwegian or crusted scabies--in immunocompromised or retarded patients--very infectious

176. Scabies burrow (40X) shows four eggs, an adult female and dark flecks that are feces

177. Treatment

178. Management of STDs in the USAF

179. Governing regulations and source documents

180. Responsibilities--providers

181. Responsibilities--Environmental Health

182. Responsibilities--Laboratory

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